10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Nestin Antibody

Our Anti-Nestin primary antibody from PhosphoSolutions is mouse monoclonal. It detects human, mouse,

Catalog # AN1463

Specification

Anti-Nestin Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P48681
Reactivity	**Bovine**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**177439**

Anti-Nestin Antibody - Additional Information

Gene ID **10763**

Other Names

ESTM 46 antibody, FLJ 21841 antibody, FLJ21841 antibody, Intermediate filament protein antibody, Nbla00170 antibody, nes antibody, NEST_HUMAN antibody, Nestin antibody

Target/Specificity

Nestin is a member of the class IV intermediate filament protein family which is expressed in neuronal stem cells (Lendahl et al., 1990). Nestin was originally identified as a result of the production of a series of monoclonal antibodies directed against epitopes expressed on formalin fixed embryo day 15 rat spinal cord (Hockfield et al., 1985)). One of these antibodies, called Rat 401, stained fibrous profiles in the developing nervous system, but not in the mature nervous system. By screening bacteriophage expression libraries with Rat 401, Lendahl et al. were able to isolate a cDNA encoding the protein to which Rat 401 antibody bound. The protein proved to be an unusual member of the intermediate filament family, containing an alpha-helical region homologous to that found in keratin and neurofilament subunits.

Dilution

WB~~1:1000
IHC~~1:100~500

Format

Protein G Purified

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-Nestin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

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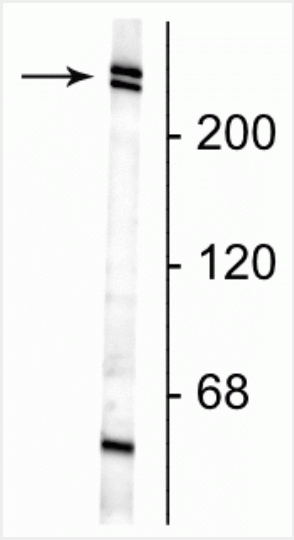
Anti-Nestin Antibody - Protocols

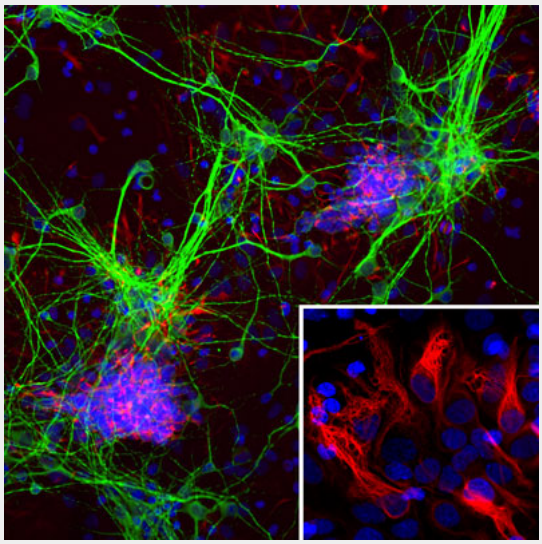
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Nestin Antibody - Images

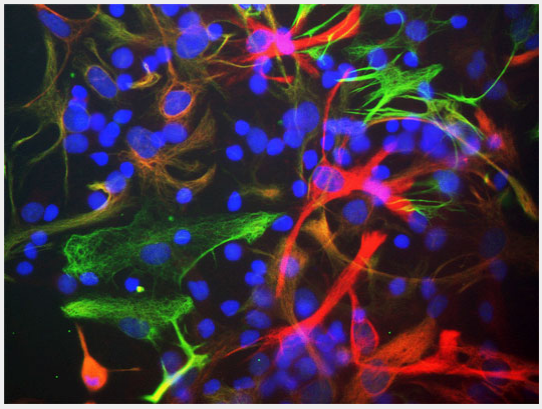


Western blot of neonatal rat brain lysate showing specific immunolabeling of the ~220-240 kDa nestin doublet.

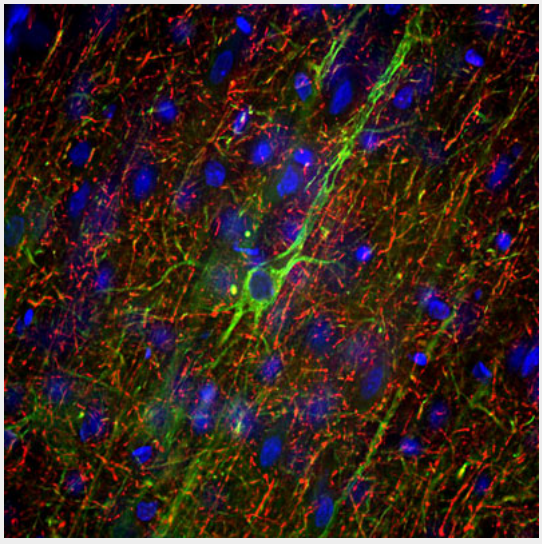


Immunostaining of cultured E20 rat cortical neurons and glia stained with anti-nestin antibody (cat. 1435-NES, red, 1:500) and anti-MAP2 antibody (cat. 1100-MAP2, green, 1:500). The blue is

Hoechst staining for nuclear DNA. The nestin antibody labels developing astrocytes and neuronal stem cells in a clearly filamentous fashion, while the MAP2 antibody stains dendrites and perikarya of mature neurons.



Immunostaining of cultured neonatal rat neurons and glia stained with anti-nestin antibody (cat. 1435-NES, red, 1:500) and anti-vimentin antibody (cat. 2105-VIM, green, 1:500). The blue is Hoechst staining for nuclear DNA. Astrocytes and neuronal stem cells stain strongly and specifically in a clearly filamentous fashion with the anti-Nestin antibody. The presence of Nestin indicates that the cells are developing astrocytes, neuroblasts or undifferentiated neural stem cells.



Anti-Nestin Antibody - Background

Nestin is a member of the class IV intermediate filament protein family which is expressed in neuronal stem cells (Lendahl et al., 1990). Nestin was originally identified as a result of the production of a series of monoclonal antibodies directed against epitopes expressed on formalin fixed embryo day 15 rat spinal cord (Hockfield et al., 1985)). One of these antibodies, called Rat 401, stained fibrous profiles in the developing nervous system, but not in the mature nervous system. By screening bacteriophage expression libraries with Rat 401, Lendahl et al. were able to isolate a cDNA encoding the protein to which Rat 401 antibody bound. The protein proved to be an unusual member of the intermediate filament family, containing an alpha-helical region homologous to that found in keratin and neurofilament subunits.